

20030416.qrp v02_n892.qrl.20030416

Date: Wed, 16 Apr 2003 19:03:10 EDT
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 2892

QRP-L Digest 2892

Topics covered in this issue include:

- 1) [149096] Re: I don't have an opinion - can I have yours?
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- 2) [149097] Re:/QRP
by "Bob Tellefsen" <n6wg@earthlink.net>
- 3) [149098] 1296 QUAGI Element Sizing Help
by "Mark S. Adams, P.E." <msadams@acsu.buffalo.edu>
- 4) [149099] Re: Mobile Antenna Efficiency(ies)
by "Karl" <kkanalz@gcecispc.com>
- 5) [149100] RE: /qrp
by Todd Enders <enders@bolshoi.cc.misu.nodak.edu>
- 6) [149101] MFJ-1795
by "Tom" <thom2@worldnet.att.net>
- 7) [149102] Re: Using WWV to adjust rig
by Tim Groat <tcgroat@earthlink.net>
- 8) [149103] Re: Anyone in MN?
by John Seboldt <k0jd-1@seboldt.net>
- 9) [149104] High Voltage Warning
by "Mike Majority" <n4vbv@earthlink.net>
- 10) [149105] Re: /qrp
by Tim Groat <tcgroat@earthlink.net>
- 11) [149106] RE: OT: Y-Parameters
by Jeff Furman <jfurman@ocs.net>
- 12) [149107] Re: Using WWV to adjust rig
by "George, W5YR" <w5yr@att.net>
- 13) [149108] Transistor question
by Pete Burbank <plburbank@earthlink.net>
- 14) [149109] RE: High Voltage Warning
by Mark Schoonover <schoon@amgt.com>
- 15) [149110] RE: I don't have an opinion - can I have yours?
by Mark Schoonover <schoon@amgt.com>
- 16) [149111] Re: ca3011 /ca3012
by "Chris Trask" <christrask@earthlink.net>
- 17) [149112] Re: BIG Loops
by "Lee Hopper" <leehopp@msn.com>
- 18) [149113] ei beacon?? 7.039.5
by "Trevor Jacobs" <kg6cyn@earthlink.net>
- 19) [149114] Re: High Voltage Warning

- by "Leon Heller" <leon_heller@hotmail.com>
- 20) [149115] NETXQRP Club Meeting, Saturday 19 April
by Chuck Carpenter <w5usj@9plus.net>
- 21) [149116] Re: May QST
by "Dave Benson" <nn1g@earthlink.net>
- 22) [149117] Re: OT: CPU needs a good home
by Al Scanandoah <k2zn@rochester.rr.com>
- 23) [149118] Re: ei beacon?? 7.039.5
by "Steve Yates - AA5TB" <aa5tb@arrl.net>
- 24) [149119] Mobile Antenna's
by "Karl F. Larsen" <k5di@zianet.com>
- 25) [149120] Re: ei beacon?? 7.039.5
by "Steve Yates - AA5TB" <aa5tb@arrl.net>
- 26) [149121] Four State QRP Group Wednesday Warble
by "David Bixler" <qrp@netins.net>
- 27) [149122] Re: Transistor question
by "Brad Hernlem" <alihernlem@hotmail.com>
- 28) [149123] High-Efficiency Mobile Antennas
by wkhibbert@juno.com
- 29) [149124] Teledyne Relays
by "Brad Hernlem" <alihernlem@hotmail.com>
- 30) [149125] FDIM 2002 - Remembering the FUN!!
by "KB9BVN" <brian@iquest.net>
- 31) [149126] Re: [fpqrp] FDIM 2002 - Remembering the FUN!!
by "KB9BVN" <brian@iquest.net>
- 32) [149127] Re: May QST
by Bruce Rattray <rattray@gpfn.sk.ca>
- 33) [149128] Re: Transistor question
by "Brad Hernlem" <alihernlem@hotmail.com>
- 34) [149129] Re: Teledyne Relays
by Steven Weber <kd1jv@moose.ncia.net>
- 35) [149130] RE: High Voltage Warning
by Steve.Lawrence@ITWFEG.COM
- 36) [149131] Re: Teledyne Relays
by Bob Nielsen <nielsen@oz.net>
- 37) [149132] Re: Teledyne Relays
by "George, W5YR" <w5yr@att.net>
- 38) [149133] Re: ca3011 /ca3012
by "Edwin Weal" <edweal@earthlink.net>
- 39) [149134] Re: I don't have an opinion - can I have yours?
by "George, W5YR" <w5yr@att.net>
- 40) [149135] Fwd: Mercury at Sunset & Moonlit Auroras
by Ed Tanton <n4xy@earthlink.net>
- 41) [149136] Re: High Voltage Warning
by "Mike Yetsko" <myetsko@insydesw.com>
- 42) [149137] Re: Teledyne Relays
by David Hinerman <WD8CIV@worldnet.att.net>
- 43) [149138] RE: I don't have an opinion - can I have yours?

by "Boulineau, Lee" <lee.boulineau@attws.com>
44) [149139] OT: How About A Good Laugh?
by Brian Short <bshort4@cox.net>
45) [149140] The Lowdown on MN Surplus (thanks!)
by "Brad Hernlem" <alihernlem@hotmail.com>
46) [149141] Re: BIG Loops
by Jerry Lofstead <w3cde@bellsouth.net>
47) [149142] Speedex straight key FS
by "Ken Simpson, W8EK" <W8EK@fdt.net>
48) [149143] RE:%20High%20Voltage%20Warning
by "Mike Majority" <n4vbw@earthlink.net>
49) [149144] Re: OT: How About A Good Laugh?
by "Leon Heller" <leon_heller@hotmail.com>
50) [149145] Re: ST. Louis Loop Question (long)
by WJurgens@t-online.de (Wolf-Ruediger Jurgens)
51) [149146] Re: ERP equations ?
by "Russ Hines" <wb8zcc@one.net>
52) [149147] WTB: Miracle Whip
by Ji m <ku4qw@yahoo.com>
53) [149148] For Sale, 80-6m Vern Wright coil for St Louis Vertical
by "John_Evans" <jaevalms@mail.codenet.net>
54) [149149] about that antenna
by hamjoel@juno.com
55) [149150] Re: ERP equations ?
by George Fremin III <geoiii@kkn.net>
56) [149151] GA all QRPp and the GA QSO Party
by Larry Cahoon <lejek@erols.com>
57) [149152] FS: Two OHR 30M QRP Rigs
by mjfitz@uswest.net

Date: Tue, 15 Apr 2003 19:07:23 -0400
From: wkhibbert@juno.com
To: qrp-l@lehigh.edu
Subject: [149096] Re: I don't have an opinion - can I have yours?
Message-ID: <20030415.190723.-405533.0.wkhibbert@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi Bruce. Keith here in the Depths of the Great Bergen Swamp.

I have tried it both ways and would have stuck with the tuner but I received a copy of an article on high-efficiency mobile antennas from Bob Sherwood back in the mid-80's, and his curves indicated that retuning the antenna to resonance would show benefits with increased radiation efficiency.

With the large (so-called Kilowatt) resonator, the 2:1 SWR curve on a Hustler is about 70 KHz wide, 3:1 about 120 KHz. I tuned the antenna to 7260 KHz which covered the most-used portion of the Phone band (ECARS/MIDCARS and the like) and with a large "Hippo Clip" with a length of #12 for a capacity hat, one can tune lower on the band quickly.

I had a clip-on hat for 7175 KHz and one for 7030 KHz, one with a white wire and one with black. I ran a Yaesu FT-7 back in that era, later a Ten Tec Scout. I was driving from CT to VA on a weekly basis at that time and for a short time even ran a Yaesu FT-747 in the mobile at about 50 watts. There were a number of interesting stops on the way for VHF also. Ah, memories!

Mobile happy!

73, Wm. Keith Hibbert, WB2VUO, TC/WNY ARRL Section
President, Brockport Amateur Radio Klub
"My night light runs more power than my Rig!!!"

----- Forwarded message -----
From: Bruce Muscolino <w6toy@erols.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Date: Sun, 13 Apr 2003 12:01:08 -0400
Subject: Re: I don't have an opinion - can I have yours?

Keith,

Why not just use a tuner? I used HyGain verticals for three years while living in Europe and always used a tuner. No capacity hats to adjust or remove when you didn't need them. The antennas and the tuners have more than adequate range.

73

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Date: Tue, 15 Apr 2003 16:31:02 -0700
From: "Bob Tellefsen" <n6wg@earthlink.net>
To: <qrp-l@lehigh.edu>
Subject: [149097] Re:/QRP
Message-ID: <MABBJOEABOILMKCJCLFCGELCEEAA.n6wg@earthlink.net>

MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I operate the cw contests on 160m each winter, running 5w with my K2.
I never sign /QRP. Some folks know me and will offer a "Good sig" comment,
otherwise I never let on. Just jump in and let the chips fall where they
may.
On top band, I will never compete with the KW stations, nor do I try to. My
goal is always to beat my previous best score, and that's it. I might check
the standings to see how other QRPers I know have done, but that's about it.
73, Bob N6WG

Date: Tue, 15 Apr 2003 20:34:26 -0400
From: "Mark S. Adams, P.E." <msadams@acsu.buffalo.edu>
To: QRP Fanatics <qrp-1@lehigh.edu>,
"RVHFG_general@yahoogroups.com" <RVHFG_general@yahoogroups.com>,
Cc: n6nb@arrl.net
Subject: [149098] 1296 QUAGI Element Sizing Help
Message-ID: <213281422.1050438866@K2Q0>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit
Content-Disposition: inline

Hi Gang,

The Lucite was cut on the bandsaw with care in preparation for 1/16"
elements of brazing rod per N6NB's instructions if I'd dare. OK, that's
bad.....

Anyway, I discovered that 1/16" brass brazing rod is MIGHTY WIMPY! All my
other VHF+ antennas have been made with 1/8" 5566 Al weld rod which is nice
to work with. Soooooo, has anyone made a 1296 QUAGI using 1/8" elements?

Thanks es 73,
Mark K2Q0

Date: Tue, 15 Apr 2003 19:55:32 -0500
From: "Karl" <kkanalz@gcecispc.com>
To: <wkhibbert@juno.com>,
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Subject: [149099] Re: Mobile Antenna Efficiency(ies)
Message-ID: <050501c303b2\$e25a0c00\$6f1a0ed0@HamShack>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi, Keith. Karl here in "the sticks" of Northwest McKinney.

Sorry, Keith, but there are NO "high-efficiency" mobile antennas, regardless of what Bob Sherwood may have told you in the mid-80's! The very, very, very BEST efficiency in a mobile antenna is about 4%.

With Hustler antennas, even the "kilowatt" series, which I consider to be air-cooled dummy loads, the efficiency is even lower.... perhaps around 2% or so.

This does NOT mean, however, that you can't work other stations from a mobile environment -- I did it for more than 100,000 miles with a barefoot IC-735 and a kilowatt Hustler coil for 40M when I was based in California in 1985-1992. Low efficiency? Sure! Did it work? Sure! Even with a 100-watt PEP output, I'll bet I wasn't radiating more than 4 or 5 watts (if that much), but stations back in LA, when I was in Las Vegas, could hear me just fine.

All that says is that QRP signals do work!

Karl K - W8TIF
McKinney, Texas

----- Original Message -----

From: <wkhibbert@juno.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Tuesday, April 15, 2003 6:07 PM
Subject: Re: I don't have an opinion - can I have yours?

> Hi Bruce. Keith here in the Depths of the Great Bergen Swamp.

>

> I have tried it both ways and would have stuck with the tuner but I
> received a copy of an article on high-efficiency mobile antennas from Bob
> Sherwood back in the mid-80's, and his curves indicated that retuning the
> antenna to resonance would show benefits with increased radiation
> efficiency. <snip>

Date: Tue, 15 Apr 2003 20:49:01 -0500
From: Todd Enders <enders@bolshoi.cc.misu.nodak.edu>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [149100] RE: /qrp
Message-ID: <200304160149.AA00615@bolshoi.cc.misu.nodak.edu>
Content-Type: text/plain
Mime-Version: 1.0 (NeXT Mail 4.2mach_patches v148.2)

"Hare,Ed, W1RFI" <w1rfi@arrl.org> writes:

>The big gun contesters HATE /QRP! They don't care whether
>you are QRP or not, and if you send W1RFI/QRP, by the time
>you get to the /QRP part, he will go back to the first of the two
>or three calls he copied in his head simultaneously. All the /QRP
>does is waste time.

>

Too right! Also, depending on the DX station and the size
of the pile, same rule applies there. Indeed, I've heard several
DX stations who didn't even wait for /M. If the pile is thick, they're
going to try and thin it down as quickly as possible, in most cases.

On the other hand, in more modest piles, I've seen /QRP
work, but if the station would have waited that 2-3 sec and sent
their call, results would have been similar, IMHO. Or, something
like <your call> <your call>.

From the DX station's perspective, he's looking to pick calls
out of the din of the pile. The strongest signals get worked first
because they can be heard above that din. If everybody in the
pile is pretty much equal, they will either work in from the edges
of the pile, or take what they can hear in lulls between stations
calling together.

Basically, it comes down to "standing out in the crowd". True,
sometimes /QRP will do the job, but more positive results are to be
had, IMHO, by being a savvy operator. :-)

72/73,

Todd, AGOT

Date: Tue, 15 Apr 2003 21:29:35 -0400
From: "Tom" <thom2@worldnet.att.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [149101] MFJ-1795
Message-ID: <012b01c303b7\$a5458100\$29d8580c@1xjhu>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Gang,

I guess I had a traumatic experience as a young ham. Even in this day of cable TV and high pass filters, I'm still afraid to let my neighbors see my antennas. And Bruce's QST article has got me thinking.

I was looking through QST and saw an ad for the MFJ-1795 verticle antenna, which is supposedly only 10' high. In the never ending quest to find a small antenna that can do the job, this has piqued my interest. I was thinking of mounting it on my backyard shed which has a roof about 6-7 feet up, and use it as a ground plane.

Has anyone used one of these or heard anything about it?

Thanks
Tom, WB2QDG

Date: Tue, 15 Apr 2003 19:59:35 -0600
From: Tim Groat <tcgroat@earthlink.net>
To: qrp-l@lehigh.edu
Subject: [149102] Re: Using WWV to adjust rig
Message-ID: <5.1.1.6.2.20030415192540.00a1bb90@mail.earthlink.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Using the difference between LSB and USB beat notes adds another variable to the mix. Since rigs these days use the same IF filter for LSB and USB, the BFO (carrier signal) must shift from above to below the filter pass band when changing modes. Some rigs actually measure the carrier oscillator frequency, but many merely perform the arithmetic assuming the carrier is on the mark.

It's not unusual for the carrier frequencies to be a bit off. Twenty years ago, the dial resolution was 100Hz and you weren't likely to notice a 50Hz

error. With modern dials reading to 10Hz or better, you will see the difference.

The important point here is that it may not be the reference oscillator at all. There's a good chance the carrier oscillator is slightly off. I would read the service manual before jumping into alignment of a synthesized transceiver. It's too easy to make a wrong move if you jump in unprepared.

72,
--Tim (KROU)

Date: Tue, 15 Apr 2003 21:09:44 -0500
From: John Seboldt <k0jd-1@seboldt.net>
To: alihernlem@hotmail.com;, qrp-1@lehigh.edu
Subject: [149103] Re: Anyone in MN?
Message-ID: <5.1.0.14.0.20030415210149.00a50b80@seboldt.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 02:42 PM 4/15/03 +0000, you wrote:

>What are the hot surplus places to visit in and around the Twin Cities,
>these days? Is Ax-Man still in business?
>
>TNX
>
>Brad KG6IOE

3 year old info here - that's when I moved away...

I sure hope Ax-Man is still in business - several locations.

The best one I remember is ?ABC? Surplus - in the warehouse district north of downtown Mpls - their supply of RF-related stuff was interesting - crystals, trimmer capacitors, ceramic disks of various voltages and temperature characteristics, boxes, wire, you name it.

A wonderful place, run by a ham, closed a few years before we left - Endless Electronics in St. Paul - more RF stuff there, including some old military frequency meters (good VFO material!), some microwave modules interconnected with SMA plumbing, old VHF handie circuit boards/cases, etc.

One store had a few remnants of surplus stuff - AEI Electronics, Minneapolis - but above all, to have a browsable electronic parts store is a rarity these days - full line of NTE replacement semiconductors all lined

up on the giant pegboards. No surface mount at the time - one guy at the front desk seemingly didn't believe you could work with surface mount without factory-assembly-type equipment! (Hope he's seen the light since.....)

Good luck; hope they're still there.

John Seboldt K0JD
Milwaukee, WI (but "forever a zero...")

Date: Tue, 15 Apr 2003 22:46:26 -0400
From: "Mike Majority" <n4vbv@earthlink.net>
To: "qrp-l" <qrp-l@lehigh.edu>
Subject: [149104] High Voltage Warning
Message-ID: <410-2200343162462646@earthlink.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII

Evening all,

Just had an incident in the shop last night and thought I'd share it. An embarrassing lesson learned (again!). Have dealt with house current many years (120 volt) and am still careful around it, but used to working with it. While wiring up a simple light switch was using my multimeter to confirm the incoming hot wire. (I ALWAYS use the meter again after killing the breaker to confirm that there's no voltage coming in on another line, like a 3-way switch setup, or something "unusual" someone who previously owned the house might have done.) To make the story short, while I was reading the meter, the hot probe moved ever so slightly and touched the metal case on the switch while still contacting the hot screw. The result is pretty predictable. Nice light/sound show and a slightly burned probe. Have been bit before (didn't like it), so am still always careful to hold the probes back from the tips, etc., and not contact the work while testing. Didn't hurt anything but my pride this time.

Yep it's embarrassing, but worth sharing anyway if it keeps somebody else from losing a key/paddle finger (or worse). Don't work when you're tired (it was late, but wanted to "get done"), use a clip probe for the ground, keep a hand in a pocket, don't stand on wet ground, and DON'T EVER GET COMPLACENT! 120 volt house current can kill, and has before. From the looks of the probe and switch metal, a severe burn/shock can occur. Yep, I'll keep the same probe on the meter as a reminder. I can stand the embarrassment of this post if it keeps somebody else from the same or worse consequences. A previous neighbor (licensed electrician for 20+ years) was severely burned by 120v and is still feeling the after effects today.

72, es work safe,
Mike, N4VBV in South Carolina

--- Mike Majority
--- n4vbv@earthlink.net
--- EarthLink: The #1 provider of the Real Internet.

Date: Tue, 15 Apr 2003 20:42:44 -0600
From: Tim Groat <tcgroat@earthlink.net>
To: qrp-l@lehigh.edu
Subject: [149105] Re: /qrp
Message-ID: <5.1.1.6.2.20030415201223.00a1bcf0@mail.earthlink.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

I agree with Ed. In a CW contest, it often takes longer to send "/QRP" than to send the exchange. I count 28 dit lengths to send /QRP, compared to 20 for 5NN4 (typical CQWW exchange). It's even longer than my zero-area call sign (26 dit lengths). In a major contest or DX-pedition, the top guns don't wait around for /QRP--they'll be busy working somebody else while you finish calling.

Worse, you can miss your QSO because the other station proceeds before you're listening. Major contest and DX stations like to work at a quick, steady tempo. Failing to follow their lead puts you out of "sync" and hurts your chances to make the contact.

72,
--Tim (KR0U)

Date: Tue, 15 Apr 2003 19:55:24 -0700 (PDT)
From: Jeff Furman <jfurman@ocs.net>
To: qrp-l@lehigh.edu
Subject: [149106] RE: OT: Y-Parameters
Message-ID: <Pine.LNX.4.21.0304151954270.25424-1000000@ocs.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Ian,
I just looked at the fairchild data sheet for this transistor:

<http://www.fairchildsemi.com/ds/MP/MPSH10.pdf>

I was pleasantly surprised by the inclusion of both common base and common emitter y-parameters, BUT, they are at different operating points: CB@vce=10v, Ic=5ma; CE@vce=10v, Ic=2ma.-- this makes them hard to compare. I'll try to explain:

In converting between common base and common emitter y-parameters, the output admittances should be the same. Here, the curves are similar, but not exactly the same as expected. I will guess that this is due to the difference in operating point. It would be nice to confirm this by examining f_t vs I_c curves as families of fixed V_{ce} , but, this plot is not on this data sheet.

The way you convert between common base and common emitter admittance parameters is using the indefinite admittance matrix. This starts as the 2x2 matrix of the parameters you have. you add a new row and new column to make the 3x3 indefinite admittance matrix, then, you delete one of the original rows and columns, returning to a 2x2 matrix. This is how the added elements are evaluated:

For each row and column of the indefinite admittance matrix, the sum is zero. So, for example, for the first row, the new third element is the negative of the sum of the first two elements in that row. Again, the second element in the third row is the negative of the sum of the second element of the first row and the second element of the second row. The third element of the third row should be the keystone for both the new row and column as a check.

There is no magic in this process; it doesn't depend on anything else but kirchoff's laws to prove. A simple explanation is: a network with a common connection has the current to common understood to be the negative of the sum of all the other terminal currents, and that current is only implicitly described (as the negative of the sum, etc.). Here the positive current direction is into the network. When that common connection is now disconnected from common, its current is now accounted for explicitly, and kirchoff's current law says the sum of all the terminal currents in this case of the 'floating' network must be zero.

The last part is identifying the new ports or connections. this is easily done by labelling each row and column with the transistor terminal it references. For the original 2x2 common base connection, the first column is labelled E the second column is C; the first row is E, the second row is C. This assumes y_{11} is in and y_{22} is out. In the indefinite admittance matrix (3x3) the additional terminal is now labelled as B, both row and column.

Next, the row and column labelled with the desired common terminal is struck out. What remains is the 2x2 admittance matrix of the network with a different common terminal than before. In this case the new 2x2 matrix is labelled with C for its first row and column, and the second row and column is labelled with B. The usual expression of the y-parameters for common emitter has the base as input and the collector as output-- what needs to be done is exchange the two rows, then exchange the two columns. now the base is input and the collector is output, as desired.

This works for algebraic expressions or numerical values, whatever is available.

For example, if you have common base y-parameters all plotted on linear admittance scales of the same scale factor, it is easy to do the summation mechanically using dividers in order to get the new parameter values. The G (real parts) sum to zero independently as well as the B(imaginary or susceptive) parts. Once you try this it's very easy and fast to do. The transistor scales are orders of magnitude different in order to express the data more precisely, so, replotting would be necessary. (I bet proportional dividers could be used instead...)

Now, data sheets may not always show consistent units and terminal references for tabulated data. It looks like the small signal characteristics have such a mixture: f_t is a common emitter measurement of h_{fe} ; the common base counterpart would be f_a (f -alpha) with a different value from f_t . C_{cb} and C_{rb} seem to be common base model parameters, but isn't the collector-base time constant τ_{cb} for a common emitter model?

The spice model should not have a common terminal orientation. How do you relate C_{je} and C_{jc} to the data sheet values for C_{cb} and C_{rb} ?

I could suggest some references, from memory, there are lots more:

Linvill and Gibbons, Transistors and Active Devices
for models of transistors

SEEC Notes
multivolume monograph series on semiconductor theory and applications

Huelsman, Circuits, Matrices, and Linear Vector Spaces
two-port parameters, indefinite admittance matrix

Chen, Wai-Kai, Active Network Analysis
two-port parameters, indefinite admittance matrix, network analysis

De Pian, Louis, Linear Active Network Theory
two-port parameters, indefinite admittance matrix

I suggest you borrow these before you buy them, they vary in their level and expected background.

I hope this answers at least some of your questions. Let me know if you need more.

73, Jeff AD6MX

Date: Tue, 15 Apr 2003 22:38:06 -0500
From: "George, W5YR" <w5yr@att.net>
To: <tcgroat@earthlink.net>,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [149107] Re: Using WWV to adjust rig
Message-ID: <029201c303c9\$9896b7f0\$0401a8c0@PS>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Right you are, Tim - these are some of the points I have made in connection with doing the dial calibration and expecting that alone to correct all other alignment problems.

With an IF_DSP configuration, once the dial calibration is accurate, and that is almost entirely a matter of convenience, there are no other frequency-relative adjustments to be made or which can have adverse effects.

But the 718 does indeed use an analog Carrier Insertion Oscillator and if that is off for each mode, etc., then CW and CW-R will not yield the same beatnote and LSB and USB will likely sound "different."

Anyone tackling alignment work on a modern rig should always have the service manual at hand . . .

73/72, George
Amateur Radio W5YR - the Yellow Rose of Texas
Fairview, TX 30 mi NE of Dallas in Collin county EM13QE
"In the 57th year and it just keeps getting better!"
<mailto:w5yr@att.net>

----- Original Message -----

From: "Tim Groat" <tcgroat@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Tuesday, April 15, 2003 8:59 PM
Subject: Re: Using WWV to adjust rig

> Using the difference between LSB and USB beat notes adds another variable
> to the mix. Since rigs these days use the same IF filter for LSB and USB,
> the BFO (carrier signal) must shift from above to below the filter pass
> band when changing modes. Some rigs actually measure the carrier
oscillator
> frequency, but many merely perform the arithmetic assuming the carrier is
> on the mark.
>
> It's not unusual for the carrier frequencies to be a bit off. Twenty years
> ago, the dial resolution was 100Hz and you weren't likely to notice a 50Hz
> error. With modern dials reading to 10Hz or better, you will see the
> difference.
>
> The important point here is that it may not be the reference oscillator at
> all. There's a good chance the carrier oscillator is slightly off. I would
> read the service manual before jumping into alignment of a synthesized
> transceiver. It's too easy to make a wrong move if you jump in unprepared.
>
> 72,
> --Tim (KR0U)
>

Date: Tue, 15 Apr 2003 23:35:44 -0400
From: Pete Burbank <plburbank@earthlink.net>
To: qrp-l@lehigh.edu
Subject: [149108] Transistor question
Message-ID: <5.2.0.9.0.20030415232844.00a49a90@Earthlink.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

A friend gave me a transistor labeled MRS 2029 . Can not find it on NTE or
old ECG book or google search.
Does anyone know what it is? The "M" looks like a stylistic logo like maybe
Motorola.

73

Pete NV4V

Date: Tue, 15 Apr 2003 20:57:10 -0700
From: Mark Schoonover <schoon@amgt.com>
To: "'n4vbw@earthlink.net'" <n4vbw@earthlink.net>,
Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [149109] RE: High Voltage Warning
Message-ID: <BF889CEBEFD2D511B993009027F60ABE4F6AD2@AG-JASMINE-NT4>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

This brought back a memory I had while working in my kitchen. I had my wife go out and throw the breaker for that circuit, it's clearly marked in the box. I checked it again, like you did and the DMM showed 0.0 volts. With one hand in my pocket, I grabbed the plug from the box with the other hand, and was promptly blown about 3 feet across the kitchen!! I wasn't hurt, just a slight tingle in my right hand, and man was I furious!! Come to find out, I had a double failure - the box was marked wrong, AND the battery in my DMM was DEAD!! So, in order to remove the chance of the double failure, I'll just use one of those little neon bulbs to check for a live circuit!! Oh, and I remarked the breaker box...

72 .mark

>-----Original Message-----

>From: Mike Majority [mailto:n4vbw@earthlink.net]

>Sent: Tuesday, April 15, 2003 7:46 PM

>To: Low Power Amateur Radio Discussion

>Subject: High Voltage Warning

>

>

>Evening all,

>

> Just had an incident in the shop last night and thought I'd

>share it. An

>embarrassing lesson learned (again!). Have dealt with house

>current many

>years (120 volt) and am still careful around it, but used to

>working with

>it. While wiring up a simple light switch was using my multimeter to

>confirm the incoming hot wire. (I ALWAYS use the meter again

>after killing

>the breaker to confirm that there's no voltage coming in on

>another line,

>like a 3-way switch setup, or something "unusual" someone who

>previously
>owned the house might have done.) To make the story short, while I was
>reading the meter, the hot probe moved ever so slightly and touched the
>metal case on the switch while still contacting the hot screw.
>The result
>is pretty predictable. Nice light/sound show and a slightly
>burned probe.
>Have been bit before (didn't like it), so am still always
>careful to hold
>the probes back from the tips, etc., and not contact the work while
>testing. Didn't hurt anything but my pride this time.
>
> Yep it's embarrassing, but worth sharing anyway if it keeps
>somebody else
>from losing a key/paddle finger (or worse). Don't work when
>you're tired
>(it was late, but wanted to "get done"), use a clip probe for
>the ground,
>keep a hand in a pocket, don't stand on wet ground, and DON'T EVER GET
>COMPLACENT! 120 volt house current can kill, and has before.
>From the looks
>of the probe and switch metal, a severe burn/shock can occur. Yep, I'll
>keep the same probe on the meter as a reminder. I can stand the
>embarrassment of this post if it keeps somebody else from the
>same or worse
>consequences. A previous neighbor (licensed electrician for
>20+ years) was
>severely burned by 120v and is still feeling the after effects today.
>
> 72, es work safe,
>Mike, N4VBV in South Carolina
>
>
>--- Mike Majority
>--- n4vbw@earthlink.net
>--- EarthLink: The #1 provider of the Real Internet.
>
>
>

Date: Tue, 15 Apr 2003 21:23:03 -0700
From: Mark Schoonover <schoon@amgt.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [149110] RE: I don't have an opinion - can I have yours?
Message-ID: <BF889CEBEFD2D511B993009027F60ABE4F6AD4@AG-JASMINE-NT4>

MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Hi Keith and Bruce!!

Well, there's 3 resistances you're worried about in a short mobile antenna that impacts the 'efficiency' of a HF mobile antenna system. First thing is radiation resistance. Nothing can be done to improve or change that, other than making the top whip of the antenna as long as possible. The 2nd resistance is in the coil. The bigger the better, to a point. I think you'll find that the typical screwdriver antennna has the best compromise in coil size versus coil losses... Putting a 102" top whip on top of your screwdriver really helps on 80M... You'll need about half the coil to resonate the thing. Other than making the coil as big as possible, with 0000 gauge wire, is about the only way you'll lower the losses in the coil. The third resistance is ground resistance. Now, that resistance you can do something about!! This will impact your efficiency of your antenna system... So, do your best to bond everything on your vehicle together with 1" braid. Doors, hood, trunk/hatch, body panels that are just 'glued' together. Lowering this resistance is the best way to increase the performance of your mobile setup. Oh, and if you can, get the antenna mounted as high as possible. Having shortend antennas mounted as low as possible on a vehicle will increase the ground losses some.

HTH & 72 - .mark

>-----Original Message-----

>From: wkhibbert@juno.com [mailto:wkhibbert@juno.com]

>Sent: Tuesday, April 15, 2003 4:07 PM

>To: Low Power Amateur Radio Discussion

>Subject: Re: I don't have an opinion - can I have yours?

>

>

>Hi Bruce. Keith here in the Depths of the Great Bergen Swamp.

>

>I have tried it both ways and would have stuck with the tuner but I

>received a copy of an article on high-efficiency mobile

>antennas from Bob

>Sherwood back in the mid-80's, and his curves indicated that

>retuning the

>antenna to resonance would show benefits with increased radiation

>efficiency.

>

>With the large (so-called Kilowatt) resonator, the 2:1 SWR curve on a

>Hustler is about 70 KHz wide, 3:1 about 120 KHz. I tuned the

>antenna to

>7260 KHz which covered the most-used portion of the Phone band
>(ECARS/MIDCARS and the like) and with a large "Hippo Clip"
>with a length
>of #12 for a capacity hat, one can tune lower on the band quickly.
>
>I had a clip-on hat for 7175 KHz and one for 7030 KHz, one with a white
>wire and one with black. I ran a Yaesu FT-7 back in that era, later a
>Ten Tec Scout. I was driving from CT to VA on a weekly basis at that
>time and for a short time even ran a Yaesu FT-747 in the
>mobile at about
>50 watts. There were a number of interesting stops on the way for VHF
>also. Ah, memories!
>
>Mobile happy!
>
>73, Wm. Keith Hibbert, WB2VUO, TC/WNY ARRL Section
>President, Brockport Amateur Radio Klub
>"My night light runs more power than my Rig!!!"
>
>----- Forwarded message -----
>From: Bruce Muscolino <w6toy@erols.com>
>To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
>Date: Sun, 13 Apr 2003 12:01:08 -0400
>Subject: Re: I don't have an opinion - can I have yours?
>
>
>Keith,
>
>Why not just use a tuner? I used HyGain verticals for three years while
>living in Europe and always used a tuner. No capacity hats to
>adjust or
>remove when you didn't need them. The antennas and the tuners
>have more
>than adequate range.
>
>73
>
>
>-----
>Sign Up for Juno Platinum Internet Access Today
>Only \$9.95 per month!
>Visit www.juno.com
>
>

Date: Tue, 15 Apr 2003 22:06:25 -0700

From: "Chris Trask" <chistrask@earthlink.net>
To: <peter.wotherspoon@newhorizonsolutions.com>,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [149111] Re: ca3011 /ca3012
Message-ID: <01ae01c303d5\$ef097e40\$cf883a41@default>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit

>
> Does anyone have an application note, or a schematic with this device in
> it?
>
> I have a few that are labeled AE 906, and somehow I got a crossref to
> ca3011/12, so I'm not even sure which device they are.
>

Peter,

The CA3011/3012 is an IF amplifier IC intended for 4.5MHz TV and 10.7MHz FM receiver IF applications. It's not a linear amplifier, but rather a limiting amplifier. The input signal comes from the tuner and the output signal then goes to the FM detector. Not much of a data sheet in this old (1982) RCA databook.

Chris

```

      ,-----,
      /  What's all this  \
      / extinct stuff, anyhow? \
      \-----,-----'
      _||/
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```

High Performance Mixers and
Amplifiers for RF Communications

Chris Trask / N7ZWY
Principal Engineer
Sonoran Radio Research
P.O. Box 25240
Tempe, Arizona 85285-5240

IEEE Member #40274515

Email: chistrask@earthlink.net
<http://www.home.earthlink.net/~chistrask>

Graphics by Loek Frederiks

Date: Tue, 15 Apr 2003 23:15:37 -0700
From: "Lee Hopper" <leehopp@msn.com>
To: "Posting to the list QRP-L" <qrp-l@Lehigh.EDU>
Cc: <sslyon@megalink.net>
Subject: [149112] Re: BIG Loops
Message-ID: <BAY4-DAV178YGn70z8k0002858a@hotmail.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Seab Lyon wrote in part:

.try to gamma or delta feed it, the way some hams have done with huge bridges.

Seab - I'd be interested to know more about feeding a huge bridge - got any more info on that, or anyplace I can read more about it?

73 -

Lee Hopper, NB7F
Portland, OR
A beautiful city with many bridges.

Date: Wed, 16 Apr 2003 00:10:46 -0700
From: "Trevor Jacobs" <kg6cyn@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [149113] ei beacon?? 7.039.5
Message-ID: <00e901c303e7\$4db2d480\$1d8eb3d1@tjacobs>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

It's about 07:15 UTC here in the shack and there's a VERY loud beacon "dit didit" EI on 7.039.5. Looked at the Russian beacon list and don't see it listed. Anyone have an idea of where it's from?

73's Trev KG6CYN
<http://www.qsl.net/kg6cyn>

Date: Wed, 16 Apr 2003 08:06:06 +0000

From: "Leon Heller" <leon_heller@hotmail.com>
To: n4vbv@earthlink.net, qrp-1@Lehigh.EDU
Subject: [149114] Re: High Voltage Warning
Message-ID: <Law15-F50rPZku6s33Y00005c16@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

>From: "Mike Majority" <n4vbv@earthlink.net>
>Reply-To: n4vbv@earthlink.net
>To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
>Subject: High Voltage Warning
>Date: Tue, 15 Apr 2003 22:46:26 -0400

>

>Evening all,

>

> Just had an incident in the shop last night and thought I'd share it. An
>embarrassing lesson learned (again!). Have dealt with house current many
>years (120 volt) and am still careful around it, but used to working with
>it.

It's 240V in Europe, much nastier! I got a shock across my chest once from
the inputs to a mains transformer (I'd forgotten it was still connected to
the supply) which shook me up a bit. I felt all the muscles in my chest
contract and let go quickly. My chest was quite painful for a few days.

Many years ago in a lab I've seen someone get his hands across opposite
phases of a 440 V 3-phase supply - he was lucky and just had burnt hands. He
couldn't let go of the bus bars, the emergency stop buttons didn't work and
someone had to go down to the basement and switch the motor/generator off.
He was across the supply for several minutes. He was back at work a couple
of days later, heavily bandaged.

Leon

--

Leon Heller, G1HSM
leon_heller@hotmail.com
http://www.geocities.com/leon_heller

Get Hotmail on your mobile phone <http://www.msn.co.uk/mobile>

Date: Wed, 16 Apr 2003 05:48:35 -0500

From: Chuck Carpenter <w5usj@9plus.net>
To: qrp-l@lehigh.edu, George Baker <w5yr@att.net>,
Lew Paceley <lew@paceley.com>,
Subject: [149115] NETXQRP Club Meeting, Saturday 19 April
Message-ID: <3.0.2.32.20030416054835.0080bdf0@mail.9plus.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

QRPers,

All who are interested are invited to attend.

Saturday, April 19, 2002 -- 1:00 to 3:00 pm (or so)

Los Hermanos
1500 W. Moore Ave (US80 West)
Terrell, TX 75160
972-524-5580

Directions:

Los Hermanos is on the West side of Terrell. It is on the North side of US80 (Moore Ave.) about a block East of the intersection of US80, SH205, and SH148. SH205 goes North from US80 toward Rockwall and SH148 goes South back across IH20. Los Hermanos is a small restaurant next to a Payless Shoe Source.

If you have a favorite QRP something you'd like to bring along, please do. Each month we also have a *Door Prize* drawing. Bring an item to share for the door prize table. A drawing is held at the end of the meeting to *redistribute* the wealth. Everyone attending gets a chance at one (or more) of the prizes. Good food, good conversation and good company. Come join the fun!

Chuck Carpenter, W5USJ, Point, Rains Co., TX - EM22cv, NETXQRP #1
QRP-ARCI #5422, QRP-L #1306, QRPP-I #115, ARS #1280, SOC #57
Zombie #759, COG #11, 6 Club #201, NETXQRP <http://www.netxqrp.org>

Date: Wed, 16 Apr 2003 07:18:46 -0700
From: "Dave Benson" <nn1g@earthlink.net>
To: <brian@iquest.net>, <qrp-l@lehigh.edu>
Subject: [149116] Re: May QST
Message-ID: <00dc01c30423\$1919e600\$53e2d73f@pavilion>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

I regret will not be making Dayton this year. I am running nearly a month behind in filling orders, so any merchandise I bring is at the expense of the folks already waiting patiently for their orders. [It's not a bad problem to have!]

73- Dave Benson, K1SWL

>>-----Original Message-----

From: KB9BVN <brian@iquest.net>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Date: Tuesday, April 15, 2003 6:26 AM
Subject: May QST

QRP section elaborates more on the venerable Rockmite. Dave, will you have Plenty-o-Rockmites at Dayton or FDIIM?

<<

Date: Wed, 16 Apr 2003 07:36:07 -0400
From: Al Scanandoah <k2zn@rochester.rr.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [149117] Re: OT: CPU needs a good home
Message-ID: <3E9D4027.1B0CEBCA@rochester.rr.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

The Celeron is spoken for. Thanks to all who responded.

72, Al

Al Scanandoah wrote:

>
> Slot 1 Celeron, 333 MHz. Yours for the cost of shipping.
>
> Al, K2ZN

Date: Wed, 16 Apr 2003 06:43:50 -0500
From: "Steve Yates - AA5TB" <aa5tb@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Subject: [149118] Re: ei beacon?? 7.039.5
Message-ID: <000c01c3040d\$73bfa010\$0100a8c0@MAIN>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Trev,

I don't know anything about it but I hear it here in Fort Worth,
TX at 1142 UTC in 7039.3 MHz.

73,
Steve Yates - AA5TB

<http://www.qsl.net/aa5tb/>

Date: Wed, 16 Apr 2003 05:52:06 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: qrp-l@lehigh.edu
Subject: [149119] Mobile Antenna's
Message-ID: <Pine.LNX.4.44.0304160523370.1575-100000@bucket.dog>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Be careful. The efficiency of a mobile antenna is greatly
effected by the frequency your using. I have a huge 2 meter antenna that
shows several DB gain over a ground plane.

The standard 8 foot steel rod mounted on the roof of your van
will be very efficient on 10 meters. I have worked a lot of DX with this
antenna.

As you go down in frequency the problems get worse. 15 and 20
meter loaded antenna's can be efficient radiators in the area of 50-60%.

At 40 meters and lower the loading coil Q drops because it is a
big coil and your losses to resistance increase. On 40 meters your
antenna impedance will be around 2-4 ohms at resonance. Your generator
impedance is 50 ohms so if you do not transform your transmitter
impedance, the effeminacy is low. But if you have a good antenna tuner

that will transform your 50 ohms to 2-4 ohms the efficiency can go up. Alas, the car is too small a ground plane so you pick up losses due to a poor ground plane.

I have a 40 meter Ham Stik mounted up on a lip of my pickup camper roof. The feed line is about 6 feet long and goes to the MFJ antenna tuner. The tuner hooks to the radio. The radio is either a TS-50 at 100 watts, or a FT-817 at 5 watts. This antenna is about 10 DB below my 88 foot dipole tuned to 40 meters.

On 80 or 160 meters do your best and it will just be a few percent efficient, but get out if the propagation is good.

--

- Karl Larsen k5di Las Cruces,NM Az ScQRPions -

Date: Wed, 16 Apr 2003 06:49:46 -0500
From: "Steve Yates - AA5TB" <aa5tb@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [149120] Re: ei beacon?? 7.039.5
Message-ID: <001501c3040e\$4803fce0\$0100a8c0@MAIN>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Of course I meant 7039.3 kHz! It's not very strong here.

73,
Steve Yates - AA5TB

Date: Wed, 16 Apr 2003 08:03:51 -0500
From: "David Bixler" <qrp@netins.net>
To: "'Low Power Amateur Radio Discussion'" <qrp-l@Lehigh.EDU>
Subject: [149121] Four State QRP Group Wednesday Warble
Message-ID: <000501c30418\$a0497240\$e915b9cc@Host>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Gang:

Today is April 16th, the taxes have been mailed and if the weather man cooperates, let's have a Wonderful Wednesday Warble tonight to celebrate!

See all you tax procrastinators tonight for a form 1040 warble at 9 PM central time on or pretty close to 3580.5 KHz PSK31 mode. If you are getting a refund, let us know what new rigs you are getting. If you had to pay the IRS, tell us know what rigs you are selling.....

72, Procrastinator Dave

David Bixler W0CH
Seneca, Missouri

QRP: Little radios, Big Fun!

QRP Web Site: <http://w0ch.com>
Four State QRP Group: <http://w0ch.com/fsqrp>

Date: Wed, 16 Apr 2003 13:25:54 +0000
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: plburbank@earthlink.net
Cc: qrp-1@lehigh.edu
Subject: [149122] Re: Transistor question
Message-ID: <Law9-F53LiC1h1jYhA000012edb@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Pete Burbank (plburbank@earthlink.net) asks:

>A friend gave me a transistor labeled MRS 2029 . Can not find it on NTE or
>old ECG book or google search.
>Does anyone know what it is? The "M" looks like a stylistic logo like maybe
>Motorola.

"2029" sounds like it might be a Radio Shack number suffix. Maybe it is a Motorola transistor numbered for RS (RS 2029). I will look it up tonight if you don't hear anything else by then.

Brad KG6IOE

MSN 8 with e-mail virus protection service: 2 months FREE*
<http://join.msn.com/?page=features/virus>

Date: Wed, 16 Apr 2003 09:36:15 -0400
From: wkhibbert@juno.com
To: qrp-1@lehigh.edu
Subject: [149123] High-Efficiency Mobile Antennas
Message-ID: <20030416.093754.-410387.1.wkhibbert@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi. Keith here in the Depths of the Great Bergen Swamp

First off, I do not have the equipment needed to actually check the overall efficiency of a mobile antenna, but several references from the 40's, 50's and 80's...

The early ARRL Mobile Manuals I have discuss the advantages of Center and/or Top loading versus base loading. They also discuss the use of capacity hats to reduce the size of the 'lossy' loading coils.

The net results of these articles can be summarized as:

Make the antenna as LONG as you can.
Mount the loading coil as HIGH as you can.
Use the biggest capacity hat you can mount.

In the late 80's, I got a copy of an article from Bob Sherwood. The info was actually distributed thru a Navy MARS mailing list and I don't know where it was originally published. Bob's take on the mobile antenna was in line with the earlier info I had, but had specifics on building a superior 40 Meter mobile antenna, one that would "compete favorably with the average Urban or Suburban inverted-vee..."

The base of the antenna was made from 1" rigid (Schedule 40) brass pipe. The base was 40 inches long, threaded on the ends with pipe caps that were drilled through for 3/8-24 hardware.

The loading coil was wound on linen-filled Bakelite rods mounted on a 6 inch circle, mounted between two brass plates. The ends of the rods were drilled & tapped and the plates were drilled to match, lock washers & flat washers on the ends of the rods. The rods were 6 inches long. The plates were drilled and tapped 3/8-24, one end bolted to the top pipe cap on the base section and the other with a 102" CB whip screwed in (with a lock washer to keep it from vibrating loose). The loading coil itself was wound to order to match the installation, mine was 17 turns of #8 spaced 1 wire diameter. The windings took up about 5 inches of the coil form.

The top turn of the coil was trimmed to match the antenna to frequency, nothing was removed or shortened on the antenna to keep the length maximized. It was BIG!! In fact, if you jumped the coil, it resonated as a 1/4-wave vertical on 15 Meters!.

The "Secret Weapon" for this antenna was the installation. It was not bumper mounted, it was on the top rail of the pickup bed, putting the feedpoint up about 3 feet off the ground. It worked like a champ, but was butt-ugly enough that my wife (Anne, WB1GVL) did not like riding in the truck with me. There's no accounting for taste, what can I say??

Later on, when I got the ARRL's "Antenna Compendium, Volume 1", there was an article by Bruce Brown, W6TWW for "Optimum Design Of Short Coil-Loaded High Frequency Mobile Antennas", complete with charts, graphs and curves for designs for 160M, 80 M and 40M mobile antennas. Based on these graphs, my homebrew monster had an efficiency of 24% - 45% depending on ground losses. I never measured the losses, but the limits for the estimated efficiencies are based on 10 ohms of ground loss on the high end and 2 ohms of ground losses on the low end. Efficiency is inversely related to ground losses in this case.

Using the same charts and graphs, the Hustler I ran later has an efficiency of 12% - 18%, but had a lower profile, and the family would actually ride with me!

I also put the Hustler and resonator on the ROOF of a station wagon, a big stainless steel antenna mount a spring. It was a pain to adjust and I kept hitting bridges and trees, but it got out just fine. In this case, I used multiple resonators and guyed the antenna to the front corners of the luggage rack. It was on of the two antennas that actually got me stopped and checked out for an overheight condition. I was 3 inches under the max fortunately. It would have been a long walk back here from New Jersey!

The other antenna that got me stopped was a 85" long 2 Meter colinear on top of a camper, but that's another subject...

Don't let the efficiency keep you off the bands from the mobile.
Remember, a 6% overall efficiency will cut your signal by 2 s-units. A
559 instead of a 579 is still a contact!

73, Wm. Keith Hibbert, WB2VU0, TC/WNY ARRL Section
President, Brockport Amateur Radio Klub
"My night light runs more power than my Rig!!!"

The Hustler with

The best thing to hit the internet in years - Juno SpeedBand!
Surf the web up to FIVE TIMES FASTER!
Only \$14.95/ month - visit www.juno.com to sign up today!

Date: Wed, 16 Apr 2003 13:46:14 +0000
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [149124] Teledyne Relays
Message-ID: <Law9-F58v9dwhEAnuWz00013925@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

What can you guys tell me about Teledyne relays? I found a couple type 411
T0-5 canned parts:
<http://www.teledynereleys.com/electromechanical/411.asp>

These look like they would be great for switching filters or as QRP T/R
switches. Are they normally soldered in place (is there even a socket for
such a wierd part)? Anyone use(d) these?

Brad KG6IOE

Add photos to your messages with MSN 8. Get 2 months FREE*.
<http://join.msn.com/?page=features/featuredemail>

Date: Wed, 16 Apr 2003 09:57:45 -0400
From: "KB9BVN" <brian@iquest.net>

To: "pigs" <fpqrp-1@mpna.com>, "QRP-L" <qrp-1@lehigh.edu>
Subject: [149125] FDIM 2002 - Remembering the FUN!!
Message-ID: <000901c30420\$2877a4a0\$4505020a@cincom.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

If you need a reminder of how much fun FDIM is, visit the Flying Pigs QRP Club International website and feast your eyes on this!

<http://www.fpqrp.com/BBFDIM02.pdf>

=====
KB9BVN/QRP - New Whiteland IN - EM69WN
QRP-ARCI #10223 QRP-L #1540 FIST #5695
FISTS CC #764 - Proud Member ARRL
HEATH HW-9 @ 2W or NORCAL 40A @ 1.3W
INTO INFAMOUS AF4PS ATTIC DIPOLE
SOC #400 AND FLYING PIGS QRP #-57
=====

Date: Wed, 16 Apr 2003 10:15:21 -0400
From: "KB9BVN" <brian@iquest.net>
To: "Matt Powell" <matt@mpna.com>, "pigs" <fpqrp-1@mpna.com>,
"QRP-L" <qrp-1@lehigh.edu>
Subject: [149126] Re: [fpqrp] FDIM 2002 - Remembering the FUN!!
Message-ID: <001301c30422\$9d7ab650\$4505020a@cincom.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I don't reckon we'll be a doin' that this yar.

bummer

----- Original Message -----
From: "Matt Powell" <matt@mpna.com>
To: "KB9BVN" <brian@iquest.net>; "pigs" <fpqrp-1@mpna.com>; "QRP-L" <qrp-1@lehigh.edu>
Sent: Wednesday, April 16, 2003 10:09 AM
Subject: RE: [fpqrp] FDIM 2002 - Remembering the FUN!!

> i'm gonna try for hrm, let's make it 7 bbq sammies this year!!!
>
> oh ya baby here i come!
>
> /matt
> k8klp
>
> -----Original Message-----
> From: owner-fpqrp-l@mpna.com [mailto:owner-fpqrp-l@mpna.com]On Behalf Of
> KB9BVN
> Sent: Wednesday, April 16, 2003 09:58
> To: pigs; QRP-L
> Subject: [fpqrp] FDIM 2002 - Remembering the FUN!!
>
>
> If you need a reminder of how much fun FDIM is, visit the Flying Pigs QRP
> Club International website and feast your eyes on this!
>
> <http://www.fpqrp.com/BBFDIM02.pdf>
>
>
> =====
> KB9BVN/QRP - New Whiteland IN - EM69WN
> QRP-ARCI #10223 QRP-L #1540 FIST #5695
> FISTS CC #764 - Proud Member ARRL
> HEATH HW-9 @ 2W or NORCAL 40A @ 1.3W
> INTO INFAMOUS AF4PS ATTIC DIPOLE
> SOC #400 AND FLYING PIGS QRP #-57
> =====
>
> -To unsubscribe, mail to majordomo@fpqrp.com, msg: unsubscribe fpqrp-l -
>
>

Date: Wed, 16 Apr 2003 08:21:53 -0600 (CST)
From: Bruce Rattray <rattray@gpfn.sk.ca>
To: Dave Benson <nn1g@earthlink.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [149127] Re: May QST
Message-ID: <Pine.LNX.4.33.0304160821010.7301-100000@neale.gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I, for one, can wait Dave...go to Dayton and have a fun weekend!...

..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -
- VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -
"QRP! How sweet it is!" "I am da man wit "DAH" paddle!"

On Wed, 16 Apr 2003, Dave Benson wrote:

> I regret will not be making Dayton this year. I am running nearly a month
> behind in filling orders, so any merchandise I bring is at the expense of
> the folks already waiting patiently for their orders. [It's not a bad
> problem to have!]
>
> 73- Dave Benson, K1SWL

Date: Wed, 16 Apr 2003 14:27:51 +0000
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: qrp-l@lehigh.edu
Subject: [149128] Re: Transistor question
Message-ID: <Law9-F560apMHi0SYNI000138a9@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

While we are on the subject of old transistors, does anyone recognize these:?

1) black cylinder about 8mm dia. and 7mm high with seam around middle
(looks like T0-5 shape but with flange/seam mid height. Gold leads. Marked:

1K1PHILCO T1943 6250 (must be 1962 manufacture date)

2) black T0-5 Motorola with gold leads. Marked:

M1204-1 152 ("M" is Motorola style M)

Also found some 2N328A and 2N1305.

Brad

The new MSN 8: advanced junk mail protection and 2 months FREE*
<http://join.msn.com/?page=features/junkmail>

Date: Wed, 16 Apr 2003 10:56:31 -0400
From: Steven Weber <kd1jv@moose.ncia.net>
To: alihernlem@hotmail.com
Cc: qrp-l@lehigh.edu
Subject: [149129] Re: Teledyne Relays
Message-ID: <3.0.6.32.20030416105631.007cae30@mailhost.ncia.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>What can you guys tell me about Teledyne relays? I found a couple type 411
>T0-5 canned parts:

These are generally used to switch low level RF - filters, attenuators,
ect. Probably okay to pass a few watts of RF through them.

I bought 20 of these (or something very similer, not sure of the exact part
#) at a hamfest for a \$1 a piece few years ago - cleaned the guy out :-) I
used some of them to switch the Rx band pass filters in and out in my
deluxe HB, four band, base station rig. Work great. I just soldered them
onto the board.

72,
Steve, KD1JV
"Melt Solder"
White Mountains of New Hampshire
<http://www.qsl.net/kd1jv/>

Date: Wed, 16 Apr 2003 11:13:11 -0400
From: Steve.Lawrence@ITWFEG.COM
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [149130] RE: High Voltage Warning
Message-ID: <0F3FFE4F5A.A960FD07-0N85256D0A.0052CF63-85256D0A.00539AAB@itwfeg.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

Then there's the Hot/Neutral reversed..... or the HOT ground..... All of
which I've seen. Moral of the story? Don't take anything for granted!

But we know that.... don't we?

I once burned out a HP LaserJet printer and a PC discovering this wiring error: the PC was plugged into one circuit, the printer into another -- with 120VAC on the ground. The current traveled from the printer, destroying the logic boards, up the parallel interface cable, into the PC blowing IC's off the motherboard on it's quest to find ground. When it was all said and done, the only thing left usable was the PC case!

I find one of the little 3 light circuit testers useful. Plug them in and neon lights indicate proper wiring of hot, neutral, and ground. No batteries required!

Steve
aa8af

Date: Wed, 16 Apr 2003 08:18:17 -0700
From: Bob Nielsen <nielsen@oz.net>
To: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [149131] Re: Teledyne Relays
Message-ID: <20030416151817.GB15989@n7xy.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

On Wed, Apr 16, 2003 at 01:46:14PM +0000, Brad Hernlem wrote:
> What can you guys tell me about Teledyne relays? I found a couple type 411
> T0-5 canned parts:
> <http://www.teledynereleys.com/electromechanical/411.asp>
>
> These look like they would be great for switching filters or as QRP T/R
> switches. Are they normally soldered in place (is there even a socket for
> such a wierd part)? Anyone use(d) these?

I used them a few times at work, but that was many moons ago. As I recall, they had pretty good RF characteristics up to VHF. PIN diodes pretty much took over the type of application you mentioned. I've seen T0-5 sockets, but that was also quite a while ago. Check Mouser or Digikey, you probably won't find them at Radio Shack.

73,
Bob, N7XY

--

Bob Nielsen, N7XY
Bainbridge Island, WA
IOTA NA-065, USI WA-028S

n7xy@n7xy.net
<http://www.n7xy.net>

Date: Wed, 16 Apr 2003 10:39:11 -0500
From: "George, W5YR" <w5yr@att.net>
To: <kd1jv@moose.ncia.net>,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [149132] Re: Teledyne Relays
Message-ID: <003701c3042e\$5458fa70\$0401a8c0@PS>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Steve, thanks for reminding me! I, too, acquired several of these probably 30 years ago. I hope they age well and have not deteriorated in the interim.

Do you think they are sufficiently well sealed to stand up to extended dead storage?

73/72, George
Amateur Radio W5YR - the Yellow Rose of Texas
Fairview, TX 30 mi NE of Dallas in Collin county EM13QE
"In the 57th year and it just keeps getting better!"
<mailto:w5yr@att.net>

----- Original Message -----

From: "Steven Weber" <kd1jv@moose.ncia.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Wednesday, April 16, 2003 9:56 AM
Subject: Re: Teledyne Relays

> >What can you guys tell me about Teledyne relays? I found a couple type
411

> >T0-5 canned parts:

>

> These are generally used to switch low level RF - filters, attenuators,
> ect. Probably okay to pass a few watts of RF through them.

>

> I bought 20 of these (or something very similer, not sure of the exact
part
> #) at a hamfest for a \$1 a piece few years ago - cleaned the guy out :-) I
> used some of them to switch the Rx band pass filters in and out in my
> deluxe HB, four band, base station rig. Work great. I just soldered them
> onto the board.
>
>
> 72,
> Steve, KD1JV
> "Melt Solder"
> White Mountains of New Hampshire
> <http://www.qsl.net/kd1jv/>

Date: Wed, 16 Apr 2003 9:0:53 -0700
From: "Edwin Weal" <edweal@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>,
"Chris Trask" <chistrask@earthlink.net>
Subject: [149133] Re: ca3011 /ca3012
Message-ID: <412003431616053880@earthlink.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII

I lost the original askers address, but if he wants the data sheets for
these
devices I have them and can send him a copy from the 1973 data book.
Ed Weal K6QLH
>
> >
> > Does anyone have an application note, or a schematic with this device in
> > it?
> >
> > I have a few that are labeled AE 906, and somehow I got a crossref to
> > ca3011/12, so I'm not even sure which device they are.
> >
>
> Peter,
> The CA3011/3012 is an IF amplifier IC intended for 4.5MHz TV and
10.7MHz
> FM receiver IF applications. It.s not a linear amplifier, but rather a
> limiting amplifier. The input signal comes from the tuner and the output
> signal then goes to the FM detector. Not much of a data sheet in this old
> (1982) RCA databook.
>
> Chris

--- Ed Weal
--- edweal@earthlink.net
--- EarthLink: It's your Internet.

Date: Wed, 16 Apr 2003 11:12:26 -0500
From: "George, W5YR" <w5yr@att.net>
To: <schoon@amgt.com>,
 "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [149134] Re: I don't have an opinion - can I have yours?
Message-ID: <00c001c30432\$f95355d0\$0401a8c0@PS>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Mark covered just about everything in fine style!

Let me just point out that on HF, especially below about 14 - 18 MHz, the physical dimensions of the vehicle are usually too small for the vehicle itself to be a very effective ground plane for a vertical antenna.

However, when you consider the enormous capacitance of the body and chassis to the nearby Earth, you can understand how vertical antennas on vehicles manage to do fairly well even on small vehicles.

When I was designing the antenna installation for my large (38 ft) motorhome with a metal roof, I asked Roy Lewallen W7EL how to go about it. Among the information I received was the question:

"How do you know whether adjusting the antenna is making it radiate more effectively or that you are not simply tuning the motorhome so that *it* will radiate more effectively?"

A vehicle that large makes a fair groundplane in itself for 40 meters and above plus the capacitance to ground probably provides a lower impedance "connection" to the Earth than a group of "ground rods" could provide.

Interesting stuff . . .

73/72, George
Amateur Radio W5YR - the Yellow Rose of Texas
Fairview, TX 30 mi NE of Dallas in Collin county EM13QE

"In the 57th year and it just keeps getting better!"
<mailto:w5yr@att.net>

----- Original Message -----

From: "Mark Schoonover" <schoon@amgt.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Tuesday, April 15, 2003 11:23 PM
Subject: RE: I don't have an opinion - can I have yours?

> Hi Keith and Bruce!!
>
> Well, there's 3 resistances you're worried about in a short mobile
> antenna that impacts the 'efficiency' of a HF mobile antenna system. First
> thing is radiation resistance. Nothing can be done to improve or change
> that, other than making the top whip of the antenna as long as possible.
The
> 2nd resistance is in the coil. The bigger the better, to a point. I think
> you'll find that the typical screwdriver antennna has the best compromise
in
> coil size versus coil losses... Putting a 102" top whip on top of your
> screwdriver really helps on 80M... You'll need about half the coil to
> resonate the thing. Other than making the coil as big as possible, with
0000
> gauge wire, is about the only way you'll lower the losses in the coil. The
> third resistance is ground resistance. Now, that resistance you can do
> something about!! This will impact your efficiency of your antenna
system...
> So, do your best to bond everything on your vehicle together with 1"
braid.
> Doors, hood, trunk/hatch, body panels that are just 'glued' together.
> Lowering this resistance is the best way to increase the performance of
your
> mobile setup. Oh, and if you can, get the antenna mounted as high as
> possible. Having shortend antennas mounted as low as possible on a vehicle
> will increase the ground losses some.
>
> HTH & 72 - .mark
>
>
> >-----Original Message-----
> >From: wkhibbert@juno.com [mailto:wkhibbert@juno.com]
> >Sent: Tuesday, April 15, 2003 4:07 PM
> >To: Low Power Amateur Radio Discussion

> >Subject: Re: I don't have an opinion - can I have yours?
> >
> >
> >Hi Bruce. Keith here in the Depths of the Great Bergen Swamp.
> >
> >I have tried it both ways and would have stuck with the tuner but I
> >received a copy of an article on high-efficiency mobile
> >antennas from Bob
> >Sherwood back in the mid-80's, and his curves indicated that
> >retuning the
> >antenna to resonance would show benefits with increased radiation
> >efficiency.
> >
> >With the large (so-called Kilowatt) resonator, the 2:1 SWR curve on a
> >Hustler is about 70 KHz wide, 3:1 about 120 KHz. I tuned the
> >antenna to
> >7260 KHz which covered the most-used portion of the Phone band
> >(ECARS/MIDCARS and the like) and with a large "Hippo Clip"
> >with a length
> >of #12 for a capacity hat, one can tune lower on the band quickly.
> >
> >I had a clip-on hat for 7175 KHz and one for 7030 KHz, one with a white
> >wire and one with black. I ran a Yaesu FT-7 back in that era, later a
> >Ten Tec Scout. I was driving from CT to VA on a weekly basis at that
> >time and for a short time even ran a Yaesu FT-747 in the
> >mobile at about
> >50 watts. There were a number of interesting stops on the way for VHF
> >also. Ah, memories!
> >
> >Mobile happy!
> >
> >73, Wm. Keith Hibbert, WB2VUO, TC/WNY ARRL Section
> >President, Brockport Amateur Radio Klub
> >"My night light runs more power than my Rig!!!"
> >
> >----- Forwarded message -----
> >From: Bruce Muscolino <w6toy@erols.com>
> >To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
> >Date: Sun, 13 Apr 2003 12:01:08 -0400
> >Subject: Re: I don't have an opinion - can I have yours?
> >
> >
> >Keith,
> >
> >Why not just use a tuner? I used HyGain verticals for three years while
> >living in Europe and always used a tuner. No capacity hats to
> >adjust or
> >remove when you didn't need them. The antennas and the tuners

> >have more
> >than adequate range.
> >
> >73
> >
> >

> >Sign Up for Juno Platinum Internet Access Today
> >Only \$9.95 per month!
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> >
> >
>

Date: Wed, 16 Apr 2003 12:16:24 -0400
From: Ed Tanton <n4xy@earthlink.net>
To: QRP-L Reflector <qrp-l@lehigh.edu>,
noGA reflector <nogaqrp@mailman.qth.net>
Subject: [149135] Fwd: Mercury at Sunset & Moonlit Auroras
Message-ID: <5.2.0.9.2.20030416121544.035b1d90@pop.earthlink.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

>Date: Wed, 16 Apr 2003 00:34:58 -0500
>Subject: Mercury at Sunset & Moonlit Auroras
>
>Space Weather News for April 16, 2003
><http://www.spaceweather.com>
>
>THE PLANET MERCURY: This is a good week to spot the innermost planet in
>our solar system. Look low and to the west just after sunset; Mercury will
>be there shining like a 1st magnitude star. Mercury, which is usually
>hidden by the Sun's glare, reaches greatest elongation (apparent distance
>from the Sun) on April 16th. Visit spaceweather.com for sky maps and
>details. (Note: When you're done looking for Mercury in the west on April
>16th, spin around and look at the full Moon rising in the east.
>Low-hanging full Moons very often seem swollen and colorful--a lovely
>sight.)
>
>AURORA WATCH: Earth is once again slipping into a high-speed solar wind
>stream flowing from a coronal hole on the Sun. Auroras are possible on
>April 16th and 17th--especially at high latitudes: e.g., New Zealand,
>southern Australia, northern Europe, Canada, Alaska and other northern US
>states such as Wisconsin, Vermont and Michigan. Because at this time of
>year nights are shortening in the northern hemisphere and lengthening in

>the southern hemisphere, southern sky watchers could be favored during
>this week's geomagnetic activity. The bright full Moon will make faint
>auroras harder-than-usual to see in both hemispheres.

>

>---

7273 Ed Tanton N4XY <n4xy@earthlink.net>

Ed Tanton N4XY
189 Pioneer Trail
Marietta, GA 30068-3466

website: <http://www.n4xy.com>

All emails <IN> & <OUT> checked by
Norton AntiVirus with AutoProtect

LM: ARRL QCWA AMSAT & INDEXA;
SEDXC NCDXA GACW QRP-ARCI
OK-QRP QRP-L #758 K2 (FT) #00057

"He that gives up a little liberty to gain
temporary security will lose both and
deserve neither".

--Benjamin Franklin

"Suppose you were an idiot ...
and suppose you were a member of
Congress... but I repeat myself."

--Mark Twain

Date: Wed, 16 Apr 2003 12:26:11 -0400
From: "Mike Yetsko" <myetsko@insydesw.com>
To: <Steve.Lawrence@ITWFEG.COM>,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [149136] Re: High Voltage Warning
Message-ID: <001301c30434\$e65a6480\$0200a8c0@charter.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

When I bought my last house, the den was 'user installed'. Wiring was a mess.

First I got knocked on my butt out at the pool. That led me to discover the GFI was installed wrong, and totally non-functional.

Then I couldn't get the washer to work. Kept blowing the GFI. But the washer checked out OK.

Turned out that as they went around the basement, they flipped hot/neutral at every socket, and they didn't use ground. Just tied what they 'thought' was neutral to ground at each socket.

What a mess.

But the real kicker came one day we had some leakage and the den carpet was damp. My son got a shock off the VCR. At first I didn't think much of it. I mean, you DO get a tingle off of some devices that tie chassis to a power lead through a resistor without a polarized plug, but decided to really check it out.

Turned out... There was a junction box in the laundry room that had HOT tied to the box. Yep, 110v on the box itself.

And... when the cable TV was installed, guess where the cable guy grounded the entry? Yep, the box. The box with 110v on the case.

Amazing no one was killed or serious damage occurred!

Mike

Date: Wed, 16 Apr 2003 12:27:22 -0400
From: David Hinerman <WD8CIV@worldnet.att.net>
To: qrp-1@lehigh.edu
Subject: [149137] Re: Teledyne Relays
Message-ID: <5.1.1.6.1.20030416122541.00a76410@ipostoffice.worldnet.att.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Bob et al:

Some years ago I had some boards that used little metal-can relays, only they were square with the leads arranged in a circle. The leads were bent to fit in an 8-pin DIP socket.

Dave

At 08:18 AM 4/16/2003 -0700, you wrote:

>On Wed, Apr 16, 2003 at 01:46:14PM +0000, Brad Hernlem wrote:

> > What can you guys tell me about Teledyne relays? I found a couple type 411

> > T0-5 canned parts:

> > <http://www.teledynere relays.com/electromechanical/411.asp>

> >

> > These look like they would be great for switching filters or as QRP T/R

> > switches. Are they normally soldered in place (is there even a socket for

> > such a wierd part)? Anyone use(d) these?

>

>I used them a few times at work, but that was many moons ago. As I

>recall, they had pretty good RF characteristics up to VHF. PIN diodes

>pretty much took over the type of application you mentioned. I've seen

>T0-5 sockets, but that was also quite a while ago. Check Mouser or

>Digikey, you probably won't find them at Radio Shack.

>

>73,

>Bob, N7XY

>

>--

>Bob Nielsen, N7XY

n7xy@n7xy.net

>Bainbridge Island, WA

<http://www.n7xy.net>

>IOTA NA-065, USI WA-028S

Dave Hinerman

WD8CIV@worldnet.att.net

Date: Wed, 16 Apr 2003 11:38:09 -0500

From: "Boulineau, Lee" <lee.boulineau@attws.com>

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: [149138] RE: I don't have an opinion - can I have yours?

Message-ID: <90B09553A615CE4192A646D8CFA67DA81C877D@TX-MSG05-

CCC.wireless.attws.com>

content-class: urn:content-classes:message

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: quoted-printable

Mark is indeed correct!!! I have a Jeep Cherokee with an Outbacker =
mounted in the center of the roof using a mag-mount (3 magnets). The =

performance of that antenna increased from being an expensive dummy load =
to being a reasonably effective antenna ONLY after I installed 2 straps =
to connect the mount to my Jeep in order to ground it - I have also =
taken the time and trouble to ground the panels, hood, hatch, muffler, =
etc. together. I still don't operate 80m since my system just doesn't do =
that well. I also am going to upgrade to a screwdriver antenna (probably =
a Tarheel) for 40-6m. And don't forget to ground the rig completely - =
don't assume that the negative lead going back to the battery is enough =
- I found that out the hard way!!

73 de N4MVL Lee

-----Original Message-----

From: George, W5YR [mailto:w5yr@att.net]

Sent: Wednesday, April 16, 2003 11:12 AM

To: Low Power Amateur Radio Discussion

Subject: Re: I don't have an opinion - can I have yours?

Mark covered just about everything in fine style!

Let me just point out that on HF, especially below about 14 - 18 MHz, =
the
physical dimensions of the vehicle are usually too small for the vehicle
itself to be a very effective ground plane for a vertical antenna.

However, when you consider the enormous capacitance of the body and =
chassis
to the nearby Earth, you can understand how vertical antennas on =
vehicles
manage to do fairly well even on small vehicles.

When I was designing the antenna installation for my large (38 ft) =
motorhome
with a metal roof, I asked Roy Lewallen W7EL how to go about it. Among =
the
information I received was the question:

"How do you know whether adjusting the antenna is making it radiate more
effectively or that you are not simply tuning the motorhome so that *it*
will radiate more effectively?"

A vehicle that large makes a fair groundplane in itself for 40 meters =
and
above plus the capacitance to ground probably provides a lower impedance
"connection" to the Earth than a group of "ground rods" could provide.

Interesting stuff . . .

73/72, George

Amateur Radio W5YR - the Yellow Rose of Texas

Fairview, TX 30 mi NE of Dallas in Collin county EM13QE

"In the 57th year and it just keeps getting better!"

<mailto:w5yr@att.net>

----- Original Message -----

From: "Mark Schoonover" <schoon@amgt.com>

To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Sent: Tuesday, April 15, 2003 11:23 PM

Subject: RE: I don't have an opinion - can I have yours?

> Hi Keith and Bruce!!

>

> Well, there's 3 resistances you're worried about in a short mobile
> antenna that impacts the 'efficiency' of a HF mobile antenna system. =
First

> thing is radiation resistance. Nothing can be done to improve or =
change

> that, other than making the top whip of the antenna as long as =
possible.

The

> 2nd resistance is in the coil. The bigger the better, to a point. I =
think

> you'll find that the typical screwdriver antennna has the best =
compromise

in

> coil size versus coil losses... Putting a 102" top whip on top of =
your

> screwdriver really helps on 80M... You'll need about half the coil to

> resonate the thing. Other than making the coil as big as possible, =
with

0000

> gauge wire, is about the only way you'll lower the losses in the coil. =
The

> third resistance is ground resistance. Now, that resistance you can do
> something about!! This will impact your efficiency of your antenna
system...

> So, do your best to bond everything on your vehicle together with 1"
braid.

> Doors, hood, trunk/hatch, body panels that are just 'glued' together.

> Lowering this resistance is the best way to increase the performance =

of

your

> mobile setup. Oh, and if you can, get the antenna mounted as high as
> possible. Having shortend antennas mounted as low as possible on a =
vehicle

> will increase the ground losses some.

>

> HTH & 72 - .mark

>

>

> >-----Original Message-----

> >From: wkhibbert@juno.com [mailto:wkhibbert@juno.com]

> >Sent: Tuesday, April 15, 2003 4:07 PM

> >To: Low Power Amateur Radio Discussion

> >Subject: Re: I don't have an opinion - can I have yours?

> >

> >

> >Hi Bruce. Keith here in the Depths of the Great Bergen Swamp.

> >

> >I have tried it both ways and would have stuck with the tuner but I

> >received a copy of an article on high-efficiency mobile

> >antennas from Bob

> >Sherwood back in the mid-80's, and his curves indicated that

> >retuning the

> >antenna to resonance would show benefits with increased radiation

> >efficiency.

> >

> >With the large (so-called Kilowatt) resonator, the 2:1 SWR curve on a

> >Hustler is about 70 KHz wide, 3:1 about 120 KHz. I tuned the

> >antenna to

> >7260 KHz which covered the most-used portion of the Phone band

> >(ECARS/MIDCARS and the like) and with a large "Hippo Clip"

> >with a length

> >of #12 for a capacity hat, one can tune lower on the band quickly.

> >

> >I had a clip-on hat for 7175 KHz and one for 7030 KHz, one with a =

white

> >wire and one with black. I ran a Yaesu FT-7 back in that era, later =

a

> >Ten Tec Scout. I was driving from CT to VA on a weekly basis at that

> >time and for a short time even ran a Yaesu FT-747 in the

> >mobile at about

> >50 watts. There were a number of interesting stops on the way for =

VHF

> >also. Ah, memories!

> >

> >Mobile happy!

> >

> >73, Wm. Keith Hibbert, WB2VU0, TC/WNY ARRL Section
> >President, Brockport Amateur Radio Klub
> >"My night light runs more power than my Rig!!!"
> >
> >----- Forwarded message -----
> >From: Bruce Muscolino <w6toy@erols.com>
> >To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
> >Date: Sun, 13 Apr 2003 12:01:08 -0400
> >Subject: Re: I don't have an opinion - can I have yours?
> >
> >
> >Keith,
> >
> >Why not just use a tuner? I used HyGain verticals for three years =
while
> >living in Europe and always used a tuner. No capacity hats to
> >adjust or
> >remove when you didn't need them. The antennas and the tuners
> >have more
> >than adequate range.
> >
> >
> >73
> >
> >-----
> >Sign Up for Juno Platinum Internet Access Today
> >Only \$9.95 per month!
> >Visit www.juno.com
> >
> >
> >
>

Date: Wed, 16 Apr 2003 11:53:23 -0400
From: Brian Short <bshort4@cox.net>
To: Low Discussion <qrp-1@Lehigh.EDU>
Subject: [149139] OT: How About A Good Laugh?
Message-ID: <8DC18945-7023-11D7-AF04-00306543B616@cox.net>
Mime-Version: 1.0 (Apple Message framework v551)
Content-Type: text/plain; charset=US-ASCII; format=flowed
Content-Transfer-Encoding: 7bit

I am too easily amused, but still you gotta see it:

<http://www.k7on.com/digital/tereleader.htm>

--

See my web page: <http://www.k7on.com>

Date: Wed, 16 Apr 2003 17:50:35 +0000
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: qrp-1@lehigh.edu
Subject: [149140] The Lowdown on MN Surplus (thanks!)
Message-ID: <Law9-F115d4gmSknvh7000144f1@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Thanks to everyone who responded to my request for info on surplus in MN and whether Ax-man still is in business. A hacked compilation of some responses with anonymous IDs follows.

Brad

[A] Ax-Man are still in business, but closed their store in Bloomington. They still have stores in St. Louis Park, Fridley and on University Ave in St. Paul, just west of Snelling Avenue.

[B] Ax man has several locations listed in y pages....
haven't been to any in several years

1639 University Ave
St. Paul
651 646-8653

1021 E Moore Lake DR
Fridley
763 572-3730

8008 Minnetonka Blvd
St. Louis Park 952 935-2210

[C] Yes, Ax Man lives. There are 3 stores nowadays. The largest one is on (1639) University Avenue West, on the north side of the Avenue about two blocks west of the big intersection with Snelling.

[C] The other 2 Ax Man stores are west of Mpls in St Louis Park on (8008) Minnetonka Blvd and north of Mpls in Fridley on (1021) E. Moore Lake Dr. If by chance you're out here on the first Saturday of the month, the Minnesota QRP Society meets at the Minnetonka Community Center at 1330 (conveniently, just a couple or three miles west of the St. Louis Pk Ax Man--I always double up my Saturday afternoons.

[A] Not far from Ax-Man's store on University Ave. is the Amateur Radio Consignment Center on Prior Avenue. Head west from Ax-Man "about" a mile and head north on Prior Ave. It is just past 'Rebuild Resources' on the right hand side. It is a good place run by Paul March. It is open Tuesday, Thursday, 1600-2000, and on Saturdays 0900-1200.
651-644-3102

[C] Relatively near to that (I'd guess 2-3 miles straight west) is my favorite place, Amateur Radio Consignment Store. It's about two blocks north of University on (632) Prior Ave N. Not nearly as large as Ax Man but of course everything is ham related and it's a gathering place, like a neighborhood bar, for guys who love glowbugs, scavenge parts for weird homebrew rigs, etc. The downside is that it is open on Tues & Thurs (1600-2000) and Sat (0900-1200). There'll be as many solid state rigs as tube ones & all sorts of other stuff--that National Radio speaker you've wanted, a 1940 Blue Racer, tons of relays, a dozen Variacs, etc.

[A] Otherwise one struggles to find good surplus places, but:

ABC are still at 315 7th Ave N in the warehouse district of Minneapolis
www.abctest.com 612-332-2378

AEI moved out of the warehouse district to Golden Valley. They are now on the north side of Highway 55, at the Douglas Ave. intersection, just west of Hwy 100. Very little surplus.
763-543-2585

Midwest Electronics are still down by the Metrodome in Minneapolis at 124 12th Ave South. Mostly computers but a few electronic components.
612-339-9533

Dexis is down in Eden Prairie at 9749 Hamilton Road. Not cheap. It is a while since I have been there. That in itself says something.
952-944-7670 www.dexis.com

MPC down in Eagan is a shadow of its former self. Very little electronics left.

[D] Also, if you are looking for new equipment, Radio City in Mounds View usually has a fairly good selection. It's probably not worth a special trip, but if you need some particular item it's usually a good place to find it.

Tired of spam? Get advanced junk mail protection with MSN 8.
<http://join.msn.com/?page=features/junkmail>

Date: Wed, 16 Apr 2003 13:51:42 -0400
From: Jerry Lofstead <w3cde@bellsouth.net>
To: leehopp@msn.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [149141] Re: BIG Loops
Message-ID: <3E9D982E.88FA055E@bellsouth.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Lee,

You would feed it the same way you feed a grounded tower.
Check the antenna handbook.

Jerry
W3CDE

Lee Hopper wrote:

>
> Seab Lyon wrote in part:
> .try to gamma or delta feed it, the way some hams have done with huge
> bridges.
>
> Seab - I'd be interested to know more about feeding a huge bridge - got any
> more info on that, or anyplace I can read more about it?
>
> 73 -
>
> Lee Hopper, NB7F
> Portland, OR

> A beautiful city with many bridges.

Date: Wed, 16 Apr 2003 13:53:14 -0400
From: "Ken Simpson, W8EK" <W8EK@fdt.net>
To: "QRP List" <qrp-l@lehigh.edu>
Subject: [149142] Speedex straight key FS
Message-ID: <NGBBLMCL0LBPLBFNJPMGELMEEAA.W8EK@fdt.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

For Sale:

Speedex 15-682 straight key
Black oval base. Of course it has all of the
normal adjustments for spacing, tension, etc.

Nice condition.

\$35 plus shipping from Florida.

Thanks.

73,

Ken, W8EK

Ken Simpson
E-mail to W8EK@fdt.net or W8EK@arrl.net
Voice Phone (352) 732-8400

Date: Wed, 16 Apr 2003 14:01:13 -0400
From: "Mike Majority" <n4vbv@earthlink.net>
To: qrp-l@lehigh.edu
Subject: [149143] RE:%20High%20Voltage%20Warning
Message-ID: <410-22003431618113265@earthlink.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII

Steve has a good idea with those little 3-light wiring testers. Cost less than 10 bucks, and come in VERY handy. Have used one to check every socket in the house, and used it after my wiring project to confirm correct hookup (it'll show a variety of wiring errors, such as hot/neutral or hot/ground leads reversed, no ground, etc.). Mine is made by Sperry and also includes a small button to check GFCI operation. Had heard of the scenario Mike Y. mentioned happening before, and didn't want to repeat it. They cost about \$10 or less at Lowe's, Home Depot, Etc.

The other handy item Sperry makes is a device (2 parts) where one part (xmtr) plugs into the socket (has a red light to indicate "energized"), and a hand-held rcvr that is used at the breaker box to determine which breaker the xmtr's receptacle is hooked to (has a sensitivity control as you close in on the fox, er, breaker). Helps speed up the process a bit. Even after this, I still use the DMM and a lamp to confirm power off. In the incident last night I was confirming which lines coming into the junction box were powered, for the exact reason Mike Y. mentioned. Now I also label the inside of each switch/receptacle cover with a felt-tipped marker with its corresponding breaker number as a place to start.

An old (pre-OSHA days) demo I'd seen that showed the power of house current was an old extension cord with the receptacle end cut off and the wires tied to opposite sides of a steel wool pad. When the cord was plugged in, it got EVERYBODY'S attention!. That's NOT a push to "try it at home" or "hey y'all, watch this!" (I'm a displaced hillbilly so can use that language), but just an example. Made you want to be VERY careful.

No monetary interest in Sperry, Lowe's, or Home Depot (even though I've spent enough there that I heard they're nameing a new store after me).

72,
Mike, N4VBV

--- Mike Majority
--- n4vbv@earthlink.net
--- EarthLink: The #1 provider of the Real Internet.

Date: Wed, 16 Apr 2003 18:33:43 +0000
From: "Leon Heller" <leon_heller@hotmail.com>
To: bshort4@cox.net, qrp-1@Lehigh.EDU
Subject: [149144] Re: OT: How About A Good Laugh?
Message-ID: <Law15-F111hK2t3p2Ek00007de3@hotmail.com>

Mime-Version: 1.0
Content-Type: text/plain; format=flowed

>From: Brian Short <bshort4@cox.net>
>Reply-To: bshort4@cox.net
>To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
>Subject: OT: How About A Good Laugh?
>Date: Wed, 16 Apr 2003 11:53:23 -0400
>
>I am too easily amused, but still you gotta see it:
>
> <http://www.k7on.com/digital/tereleader.htm>

I've noticed this transposition on one or two Japanese web sites that have been tlansrated into English. 8-)

73, Leon

--

Leon Heller, G1HSM Tel: +44 1424 423947
Email:leon_heller@hotmail.com
My web page: http://www.geocities.com/leon_heller

Get Hotmail on your mobile phone <http://www.msn.co.uk/mobile>

Date: Wed, 16 Apr 2003 20:37:39 +0200
From: WJuergens@t-online.de (Wolf-Ruediger Juergens)
To: "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [149145] Re: ST. Louis Loop Question (long)
Message-ID: <200304162037.40037.wjuergens@t-online.de>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Disposition: inline

Am Montag, 14. April 2003 19:08 schrieb Walter AG5P:
> My basis for the SLL design was to reduce the area of the
> loop and still maintain an efficient radiator. The loop is
> 100 ft. with the ladderline/twinlead being a minimum of 20
> ft. It is a multiband antenna from 40 - 10 meters. The

> normal size of a horizontal loop is 140 feet.....depending
> on who's formula is used. Personally I use $984/f$ MHz =
> total loop size in feet (I don't do metric, sorry!) This is
> for a horiz. loop under 30 feet elevation. Over 30 ft.
> then its $995/f$ MHz.

Where did you feed this loop? I'm planning to build such loop
for portable use. So I'm highly interested in detail's. ;-)

72 de Wolf, DL2WRJ

--

Today is the tomorrow you worried about yesterday.
(/usr/games/fortune)

Date: Wed, 16 Apr 2003 14:47:32 -0400
From: "Russ Hines" <wb8zcc@one.net>
To: <hottell@gulftel.com>,
 "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [149146] Re: ERP equations ?
Message-ID: <007301c30449\$cf0c9d60\$4285d7d8@WB8ZCC2>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hello all:

Here's how I figure this stuff out.

ERP, or effective radiated power, is calculated by this formula:

$$TPO - FL + AG = ERP \text{ (dBw)}$$

TPO is Transmitter Power Output (dBw)

FL is Feedline Loss (dB)

AG is Antenna Gain (dB)

dBw means dB relative to 1 watt. 1 watt is 0dBw, 2 watts is 3dBw, 10 watts
is 10 dBw, etc.

The units are in dB because they're easy to use in this way: you simply add
the gains and losses as necessary. Use the absolute values of the gains and
losses in the formula above.

You can determine feedline losses in one of two ways. You can measure the
particular length of line in question using a signal generator and RF

voltmeter/milliwatt meter, a spectrum analyzer with tracking generator, a network analyzer, etc. The W7ZOI/W7PUA RF power meter project from QST a year or two ago is an excellent tool to use in this case, as is the KD1JV digital power meter if you have that little gem.

The second method is you interpolate the loss by finding your frequency of interest on the line manufacturer's chart of attenuation for the particular line in use. Multiply the attenuation factor determined on the chart by your line length. Usually the attenuation factor is expressed in dB/100 ft. Plug the length and loss in the following formula:

$$(L/100) \times (dB) = FL (dB)$$

So for example, if you have 35 feet of line and the loss is 2dB per 100 ft., the loss for your line length would be:

$$(35/100) \times 2 = 0.7 \text{ dB}$$

Remember, dB expresses a ratio between two powers, in this case:

$$dB = 10 \log (p1/p2)$$

Or two voltages:

$$dB = 20 \log (v1/v2)$$

that is, 10 (or 20) times the logarithm of the ratio.

In 20+ years as a broadcast engineer, this has worked pretty well for me... except I tend to put powers in dBk, that is, dB relative to a kilowatt. Radio and TV station TPO's tend to be on the order of several kilowatts, ERP's in the megawatt range for UHF TV.

Hope this helps. Didn't mean to turn it into a dissertation. ;-)

73,
Russ Hines
WB8ZCC

----- Original Message -----

From: "Dave Hottell" <hottell@gulftel.com>

To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Sent: Tuesday, April 15, 2003 5:33 PM

Subject: Re: ERP equations ?

> Gang,

>

> I checked this link out. How and where are feedline losses accounted for?
> Perfect line?
>
> 73 de Dave
> ab9ca
>
>
>
> At 04:25 PM 4/15/03 -0500, George Fremin III wrote:
> >On Tue, Apr 15, 2003 at 12:21:41PM -0500, stanw@toxsor.com wrote:
> >> ANYone know a web site with the equations for calculating the ERP based
on
> >> type of antenna, etc.
> >> de Stan ak0b
> >
>
>[http://rf.rfglobalnet.com/software_modeling/software/14/local/dbcalculator.](http://rf.rfglobalnet.com/software_modeling/software/14/local/dbcalculator.htm)
> htm
> >
> >
> >--
> >George Fremin III - K5TR
> >geoiiii@kkn.net
> ><http://www.kkn.net/~k5tr>
> >
> >
> >
>

Date: Wed, 16 Apr 2003 12:00:26 -0700 (PDT)
From: Ji m <ku4qw@yahoo.com>
To: qrp-L <qrp-l@Lehigh.EDU>
Subject: [149147] WTB: Miracle Whip
Message-ID: <20030416190026.25800.qmail@web13901.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Anyone have one of these they would like to
sell/trade? Would like to pick one up used...

THanks,
Jim -- KU4QW
QRP in Tennessee

Do you Yahoo!?
The New Yahoo! Search - Faster. Easier. Bingo
<http://search.yahoo.com>

Date: Wed, 16 Apr 2003 13:37:46 -0600
From: "John_Evans" <jaevans@mail.codenet.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Cc: jaevans@mail.codenet.net
Subject: [149148] For Sale, 80-6m Vern Wright coil for St Louis Vertical
Message-ID: <200304161337.AA1887109276@mail.codenet.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Folks,

I have one of Vern Wright's early 80-6m coils for the St Louis Vertical that does not fit into my lightweight backpacking plans, so I am offering it here to the first ham who wants it for 60\$ shipped. I believe it has been used only once. This is the PVC form with embedded coil and brass slide piece with brass finger. It fits on the SD-20 and other fishing poles. I'll accept money order or paypal for this. Please give this a good home.

tnx es 72 - john - n0hj

Date: Wed, 16 Apr 2003 20:52:55 GMT
From: hamjoel@juno.com
To: fpqrp-1@mpna.com, qrp-1@Lehigh.EDU
Subject: [149149] about that antenna
Message-ID: <20030416.135313.934.33945@webmail04.lax.unttd.com>

the quickest way for an antenna to got itself changed around heah is to work like its ssupposed to...

ah bought me a coupla relays so ah can make the antenna reverse direction and ah can do the net with a good qrp signal again...

however ah needs a question answered...WHAT SIZE CAP DO I USE TO SHORTEN THE WIRE 6%>>???????

i'M USING 70 FOOTS OF WIRE AND GONNA PUT THE RELAY AT THE CENTER.. THEN GONNA SWITCH IN A CAP TO SHORTEN THE WIRE TO 62FT LONG... BUT AHH CANT FIGURES HOW TO FIGURE THE CAP VALUE... FREQ IS 7.050

WHICH i THINK IS REASONANT AT 66FT... (THE DRIVER) THEN AH GOES TO 6% LARGER FOR THE REFLECTOR... THAT BEES 70 FOOTS AND THEN 6% SHORTER FOR THE DIRECTOR ... WHAT BEES 62 FOOTS.... SO WHAT SIZE CAP DO AH USE TO CHANGE A 70FOOTS PIECE OF #12 GUAGE WIRE TO 62 FOOTS AT 7.050 MHZ...???

SUM OF U GUYS KNEAUX THE ANSWER, TELL ME TOO AND I'LL BUILD THE THING...

KE1LA JOEL
IN MAINE
WITH A HEADACHE

KE1LA JOEL
IN MAINE
FREEZIN

The best thing to hit the internet in years - Juno SpeedBand!
Surf the web up to FIVE TIMES FASTER!
Only \$14.95/ month - visit www.juno.com to sign up today!

Date: Wed, 16 Apr 2003 16:13:30 -0500
From: George Fremin III <geoiii@kkn.net>
To: Dave Hottell <hottell@gulftel.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [149150] Re: ERP equations ?
Message-ID: <20030416211330.GG8627@kkn.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

On Tue, Apr 15, 2003 at 04:33:58PM -0500, Dave Hottell wrote:
> Gang,
>
> I checked this link out. How and where are feedline losses accounted for?
> Perfect line?

It would seem to me the easy way would be to subtract your feedline loss
from your antenna gain.

--
George Fremin III - K5TR
geoiii@kkn.net
<http://www.kkn.net/~k5tr>

Date: Wed, 16 Apr 2003 21:03:19 +0000
From: Larry Cahoon <lejek@erols.com>
To: qrp-l@lehigh.edu
Subject: [149151] GA all QRPP and the GA QSO Party
Message-ID: <5.1.0.14.0.20030416205558.02812778@pop.erols.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Over the weekend I played around in the GA QSO party. Propagation here was not the greatest. Mainly the 20 meter skip was a bit longer than usual so I had trouble working anyone until a couple of hours before sunset. In addition there did not seem to be many fixed stations. I ended up with 43 QSO into 39 counties - mostly with mobiles. Of course I ran the entire contest at 500 mWatts using a dipole and the K1 on 20 and 40, switched to the K2 for a couple of QSO on 80 meters. Sunday evening I had a family run so I ended up doing the last two hours of the contest from the car - at the church parking lot. I still ran it at 500 mWatts with a K1 - ended up with six QSOs from the car.

But the best take of the contest was Echols county from John, K4BAI/M. That was the only county in the state that I still needed to finish off the state all QRPP.

More details are posted at my web site on a link from the activities section.

73 de Larry.....WD3P in MD
<http://www.wd3p.net/>

Date: Wed, 16 Apr 2003 16:48:16 -0500
From: mjfitz@uswest.net
To: qrp-l@Lehigh.EDU
Subject: [149152] FS: Two OHR 30M QRP Rigs
Message-ID: <3E9DCFA0.58660FD1@uswest.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Have two nice Oak Hills Research radios for sale... still clearing out my shelves to make room for an Alpha 87A...hee haw!!

1) OHR Model 100/30M-- stock with no mods. Looks like new,

and operates 100% to specs. Radio features adjustable-width IF filter and switchable in/out RIT control. Complete with original documents and power cord. \$70, CONUS shipping with insurance included. Ten-turn tuning pot available (installed if desired) for an additional \$10(not recommended unless used with an OHR DD-1 Digital Dial or similar frequency readout device).

2) OHR QRP Spirit-- stock except for addition of straight key jack on back panel next to paddle jack...can be used with a straight key. This unit features a double- balanced diode ring mixer, stable VFO with deduction-drive tuning cap, switchable AGC, RF gain control, and OHR internal keyer. It is in near-new condition, 9.5/10...just a couple of very light small scratches on it's side...the front and back panels looks like new. Enclosure is heavy-duty steel shell like the OHR400/500 series rigs...no, probably not for backpacking, but a very nice solid 30 M radio for home, or if you're driving to the park for some portable fun. Have enjoyed working a few DX stations with this one. Original cost of the kit was \$200(original receipt provided). With full original documents and power cord, \$125, CONUS shipping and insurance included.

Thanks for your attention friends...

Mike Fitzgibbon NOMF
Missouri Valley IA

End of QRP-L Digest 2892

